

# Ask the Sports Doctor – The Kneed is Partial

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## The **Kneed** is Partial

**Partial knee replacements are proving a popular alternative to conventional total knee replacements.**



Osteoarthritis, or OA, the most common form of arthritis, is a wear and tear condition that destroys joint cartilage. Cartilage is the cushion that sits between the bones of a joint, and it typically begins to break down after years of constant motion and pressure in the joints. A normal knee glides smoothly because cartilage covers the ends of the bones like Teflon. As the cartilage layer continues to break down and wear away, bone begins to rub against bone becoming more like sandpaper rubbing against sandpaper, causing the irritation, swelling, stiffness and discomfort commonly associated with arthritis. Many athletes have knee injuries that accelerate or exacerbate the arthritic process in their joints.

### **Full or Partial?**

When knee pain becomes severe and begins to affect quality of life, the most common surgical intervention is total knee replacement, a procedure that removes the natural knee joint and replaces it with artificial total joint implants. An orthopedic surgeon may recommend knee replacement surgery when a patient has more advanced osteoarthritis and has tried and failed all the nonsurgical treatment options. Surgery should only be considered if the knee is significantly affecting the patient's quality of life and interfering with normal activities.

In many athletes, as well as other patients, a procedure known as partial knee replacement, or unicompartmental knee replacement, has become a popular alternative to the more invasive, conventional total knee replacement. A partial knee implant is designed to repair only a single side of the knee, (usually the medial side), making it much smaller than a total knee implant. The normal knee contains three compartments. When a partial knee replacement is performed, only the damaged areas are replaced with an implant. When arthritis is confined to only one of the three compartments, a partial knee replacement is an attractive surgical option.

Although partial knee replacements have grown popular lately, the first ones were actually done in the 1950s. In order to be a candidate for this procedure, the patient must have arthritis limited to one compartment of the knee. Patients with inflammatory arthritis, significant knee stiffness or ligament damage may not be ideal candidates. With proper patient selection, modern unicompartmental knee replacements have demonstrated excellent medium- and long-term results in both younger and older patients.

### **Benefits of Partial Replacement**

Since a partial knee replacement involves only one of the knee's three compartments, the option has several advantages:

- Quicker recovery
- Less pain after surgery
- Less blood loss
- Lower incidence of medical complications

Additionally, a partial knee replacement does not remove ligaments and results in much less bone and cartilage loss than is the case with a total knee replacement. This minimal invasion enables a more rapid recovery, and provides a better and more natural range motion when compared to a total knee replacement. Patients undergoing a partial knee replacement also seem to have a more favorable result in regard to certain daily activities such as stair climbing or kneeling.

Patient satisfaction is greater with partial knee replacements; most patients report that it feels more “natural” than a total knee replacement. Since a partial knee replacement is done through a smaller, less invasive incision, hospitalization time is shorter, and rehabilitation and return to normal activities are faster.

After partial knee surgery, patients usually are hospitalized for up to two to three days. However, in some patients, partial knee replacement can be performed as an outpatient. Recovery time varies, but many people are able to drive after two weeks, garden after three to four weeks, and golf after six to eight weeks. Each patient is different, and it is up to the surgeon and the rest of the team to determine when and what activities patients can return to safely, and what activities to avoid.

### **Disadvantages are Few**

The main disadvantage of partial replacement is the potential need for additional surgery in the future. If the disease progresses to the other compartments, a total knee replacement surgery may be necessary.

Although surgery may be a frightening idea, arthritis and knee pain usually progresses with time. Many patients who have undergone a partial knee replacement wish they had done it sooner. A partial knee replacement may delay, and, in some cases, prevent a more extensive total knee replacement.

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